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Term: L5 same electrode

Display: 10 **Documents in Display Format:** CIT **Starting with Number** 1

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Search History

DATE: Thursday, January 30, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=OR		
L10	L9 same (advantag$ or useful$)	3	L10
L9	L8 same electrode	13	L9
L8	L7 same metal	217	L8
L7	ternary near0 compound	938	L7
L6	L5 same electrode	2	L6
L5	L4 same (advantag$ or useful$)	40	L5
L4	L1 same metal	237	L4
L3	L1 same (Group adj (14 and 16))	0	L3
L2	L1 same (Group adj 14) same (Group adj 16)	0	L2
L1	binary near0 compound	870	L1

END OF SEARCH HISTORY

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Term: L3 same (advantag$ or useful$)

Display: 10 Documents in Display Format: CIT Starting with Number 1

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Search History

DATE: Thursday, January 30, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=OR		
L5	L3 same (advantag$ or useful$)	2	L5
L4	L3 same NAD	0	L4
L3	L2 same redox	15	L3
L2	L1 same peroxidase	754	L2
L1	(alcohol or lactate or fructose) near0 dehydrogenase	6126	L1

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L6: Entry 1 of 2 File: USPT Jan 4, 1983

DOCUMENT-IDENTIFIER: US 4366614 A
TITLE: Method for constructing devices with a storage action and having amorphous semiconductors

Detailed Description Text (4):
The actual electrodes 4a and 8a are made from a metal which is able to form a binary compound with a hexagonal structure, such as tungsten or tantalum. These materials have the advantage of being suitable for the memory action. Barriers 4b or 8b are constituted by the binary compound with a hexagonal structure. In the case of tantalum electrodes, barriers 4b or 8b are made, for example, from tantalum telluride and in the case of tungsten electrodes the barriers 4b or 8b are made, for example, from tungsten telluride. These barriers 4b and 8b are necessary for the stabilization of the semiconductor.

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L10: Entry 1 of 3 File: USPT Jun 5, 1990

DOCUMENT-IDENTIFIER: US 4931172 A
TITLE: Fluoride ion-selective electrodes based upon superionic conducting ternary compounds and methods of making

Brief Summary Text (25):
According to the present invention, low cost fluoride ion-selective electrodes are made using superionic fluoride ion conductors as the active component in a polymer diffusion membrane. The supersonic conductors have the general formula, M.sub.x Ln.sub.y F.sub.3-x where M is an alkaline earth metal ion, i.e.. calcium, strontium or barium, and Ln is a lanthanide metal ion, i.e., lanthanum, cerium, prosiodymium, neodymium, promethium samarium or europium and y equals 1-x. UP to 15 mol percent of the alkaline earth fluoride can be advantageously utilized in the ternary compound, i.e., M.sub.0.15 Ln.sub.0.85 F.sub.2.85. Membranes are prepared by incorporating from 50 to 90% w/w of the superionic fluoride conductor that has been finely ground and seived, to give particle sizes less than 75 .mu.m, into a polymer matrix. The polymer can be any chemically inert, hydrophobic polymer. The polymer must be able to hold the particles in intimate contact with each other. Suitable polymers include silicone rubber, poly(tetrafluoroethylene), poly(vinyl chloride), polypropylene, polystyrene, or polyethylene.

Brief Summary Text (29):
The excellent selectivity and detection limit of the superionic conductor-based fluoride electrodes is unexpected because they contain such a large amount of alkaline earth fluoride, which has a much higher solubility than lanthanum trifluoride. The selectivity and lower detection limit of ion-selective electrodes are highly dependent on the solubility of the active component of the membrane. The addition of a much more soluble component would be expected to adversely affect these response characteristics. For this reason, the amount of Europium difluoride doping used in the single-crystal lanthanum trifluoride electrode is very small [G. J. Moody and J. D. R. Thomas, Ion-Selective Electrodes, Merrow Publishing Co., Watford, England, 1971. pp. 69-70; J. J. Lingane, Anal. Chem. 39. 881 (1967)]. Based on the solubility of calcium difluoride, the lower detection limit of these electrodes would be expected to be only approximately 4.times.10.sup.-4 M. The much lower detection limit observed, 1.times.10.sup.-6 M, is most likely due to the use of a true ternary compound which has a low solubility. The present invention uses high conductivity ternary metal fluorides for the fabrication of low cost, high sensitivity fluoride ion-selective membranes especially useful as disposable sensors for clinical applications. The method described is extremely simple and reproducible, and allows preparation of the membrane in any desirable form and thickness.

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End of Result Set

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L10: Entry 3 of 3 File: USPT Jul 20, 1982

DOCUMENT-IDENTIFIER: US 4340652 A
TITLE: Ternary compound electrode for lithium cells

Detailed Description Text (4):
Broadly, the present invention utilizes oxide compounds, rather than the prior sulfide compounds, as materials for a positive electrode in lithium-based cells. More particularly, these oxide compounds are ternary compositions generally represented by Li-M-O where Li represents lithium, M represents a transition metal, and O represents oxygen. Preferably, the transition metal of these ternary compounds is manganese, iron, cobalt or nickel due to the practical advantage of lighter weights and higher specific energies. More preferably, the transition metal is selected from the group consisting of iron, cobalt and nickel because the kinetics of systems based upon iron, cobalt, and nickel have been found to be quite favorable, whereas the kinetics of a manganese system is inconsiderably slower and thus inferior to the most preferred transition metals.